SOIL CONSERVATION SERVICE
KENTUCKY

STANDARD AND SPECIFICATIONS

FOR

CLEARING AND SNAGGING

326

## - Definition -

Removing snags, drifts, or other obstructions from a channel.

## - Scope -

This standard covers the clearing of trees and brush, and the removal of sediment bars, drifts, logs, snags, boulders, piling, piers, headwalls, debris and other obstructions from the flow area of a natural or excavated channel. It also applies to selective snagging, which is the selective removal of obstructions from the channel and streambanks to increase its capacity to carry water.

## - Purpose -

To increase the flow capacity of a channel by improving its flow characteristics; to prevent bank erosion by eddies; to reduce the forming of bars; and to minimize blockages by debris and ice.

Special attention shall be given to restoring, maintaining or improving landscape resources and habitat for fish and wildlife, where applicable.

## - Conditions Where Practice Applies -

Any channel or floodway where the removal of trees, brush, and other obstructions is needed to accomplish one or more of the listed purposes. If clearing and snagging are likely to result in channel erosion, impairment to the landscape resource quality, or impairment to habitat for fish and wildlife, either the clearing and snagging shall not be done or practices to minimize such damages shall be applied concurrently with the clearing and snagging.

## - Design Criteria -

The capacities of the channel, both before and after improvement, shall be determined by use of the Manning equation, using applicable values of the retardance factor, "n" for both conditions. The value of "n" used to determine channel capacity after improvement shall reflect the degree of maintenance expected in future years.

The area to be cleared and snagged shall include the perimeter or flow area of the natural or excavated channel. Downed trees and/or other debris adjacent

to the channel shall be removed to prevent it from entering the channel. Other areas to be cleared and snagged are limited to temporary access and disposal areas.

The channel velocities after the practice is installed shall not exceed the maximum velocities for the various soil textures as shown in the standard for Drainage Main or Lateral, Code 480.

Channel stability shall not be impaired by clearing and snagging. Criteria for determination of channel stability included in practice code 582, Open Channel, shall be complied with.

- Plans and Specifications -

Plans and specifications for installation of Clearing and Snagging shall be in keeping with this standard and shall describe the requirements for application of the practice to achieve its intended purpose.

Plans will not include channel realignment or alteration of the existing channel cross-section except for the removal of small protrusions and bars.

All trees, stumps, and brush within the perimeter of the channel shall be cut as close to ground level as the cutting tools will permit. Where other areas are to be cleared, the trees, brush and other woody vegetation shall be cut within the maximum distance above ground level required by the planned use of the areas and/or as specified in the project plan.

Trees shall be felled in such a manner as to avoid damage to other trees, property, and objects located outside the limits of clearing.

Down trees, logs, drifts, boulders, debris and other obstructions lying wholly or partially within the channel shall be removed. Piling, piers, headwalls, and sediment bars that obstruct the free flow of water will be removed when so designated in the project plan.

On projects where herbicide treatment is planned, the stumps and brush within the specified area shall be treated at the time of clearing in accordance with the recommendations of the manufacturers of the particular herbicide specified or being used.

The use of explosives in any and all clearing and snagging operations shall be in strict compliance with applicable State statutes and regulations.

Den trees, shade trees, and wildlife plots that are to be preserved will be shown on the plans. Timber to be salvaged will be marked before construction begins. Through cultivated or high value land, trees, brush, and all combustible material resulting from the clearing and snagging operations shall be burned, buried, or piled in designated disposal areas as specified for the project. In other areas, such as woodland or rangeland where burning is prohibited, material shall be disposed of in such a manner that it will not float away or re-enter the channel.

All burning shall be performed outside the channel and shall conform to regulations in effect in the area. It is the responsibility of the land user to obtain a burning permit.

Residue from burning and non-combustible material shall be buried outside the channel or placed in designated disposal areas. All buried material shall have adequate earth cover to permit proper land use.

Construction methods that enhance fish and wildlife values shall be incorporated into the plan including such things as keeping equipment out of the water and performing the clearing and snagging from one side of the channel. Disturbed areas shall be stabilized with vegetation by seeding, sodding, or planting to control erosion and sediment production. Plant selection and rates of lime, fertilizer, seed, and mulch shall be in accordance with the Critical Area Planting and Mulching specifications.

The design and specifications shall be approved in accordance with the Engineering Job Classification and Approval Authority for the responsible individual.